AMENDMENTS TO THE SPECIFICATION

Please replace the on page 1, lines 8-17 with the following amended paragraphs:

The conventional semiconductor diodes has an p-n junction structure made of semiconductor materials in which the carriers make orientated movements when extra electric field force is applied and they exhibit unidirectional conductivity. Such semiconductor diodes are mainly used as rectifying or switching device. Evidently, when no bias voltage or bias current is applied, the unidirectional conductivity of such diodes will disappear and become ordinary linear devices. There is another semiconductor device called selenium pile, made of several plate-like semiconductor materials, [[---]] e.g., selenium rectifying [[plate]] plates, in ~~parallel~~ series connection. It is a rectifying device that exhibits unidirectional conductivity only when extra electric field exists.

B1

Please replace the paragraphs on page 6, lines 7-8 with the following amended paragraph:

Said well cavity can also be in the form of an array of projections in which convex portions and concave portions are staggered with respect to each other, as shown in Fig. 3(e).

B2

Please replace the paragraphs on page 8, lines ~~5~~ 3-18 with the following amended paragraphs:

Figs. 9(a), (b) and 10 show another embodiment of the parallel plate diode according to the present invention, which uses ~~kovar alloy~~ Kovar® alloy as the substrate.

B3

As shown in Figs. 9(a) and (b), ~~kovar alloy~~ Kovar® alloy whose heat expansion coefficient is about ~~3.1*10^{-6}~~ $3.1X10^{-6}$ is chosen to make a [[20*20]] 20X20 millimeter metal substrate 3 whose thickness is 0.2 millimeter. There is a silicon layer 2 on the metal substrate with a total thickness of 2 micrometers and said silicon layer 2 forms continuous projections with the side opposite to the surface of the metal plate to

which the said silicon layer 2 is attached (see Fig. 10) and the surface of such continuous projections contact the ~~kovar-alloy~~ Kovar® alloy electrode 1 made of another layer of ~~kovar-alloy~~ Kovar® alloy, thus the continuous projecting surface of the said silicon layer causes the latter ~~kovar-alloy~~ Kovar® alloy electrode 1 to form well-shape cavities.

Cont. B3

In Fig. 10, label 2-2 indicates the first silicon layer plated by the lower vacuum layer 16 formed through coating by evaporation (in a nitrogen environment, the air pressure is maintained between1.5-1.8Pa), whereas label 2-1 indicates the second silicon layer formed by higher vacuum ~~(about $5*10^{-3}$Pa)~~ (about $5X10^{-3}$Pa) silicon filming, including 6 layers of silicon films to enhance the intensity of the plated films.